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KNOWLEDGE OF INFANT/TODDLER DEVELOPMENT AMONG
LOW-INCOME FAMILIES

by

Ann B. Parkinson

A thesis submitted in partial fulfillment
of the requirements for a degree

of

MASTER OF SCIENCE

in

Family and Human Development

Approved:

UTAH STATE UNIVERSITY
Logan, Utah

1991

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ABSTRACT

Knowledge of Infant/Toddler Development
Among Low-Income Families

by

Ann B. Parkinson, Master of Science
Utah State University, 1991

Major Professor: Dr. Glen O. Jenson
Department: Family and Human Development

Pretest data from a two-year project entitled "An Early Intervention Program for Parents of Young Children at-Risk" were collected and analyzed, in a sample of 2,191 low-income parents, for Head Start participation and baseline information. Respondents participating in the sample were from the states of California, Delaware, Nevada, South Carolina, and Utah. For their participation in the study, respondents received a free subscription to age-paced newsletters, which contained information about appropriate growth expectancies, nutrition, and guidance for their child of 36 months or younger. Newsletters were mailed monthly to parents who had children 12 months and younger and every other month to parents with children older than 12 months.

Knowledge of infant/toddler development among Head Start and non-Head Start parents was measured by t-test comparisons. Univariate analysis of demographic influences

on developmental knowledge was computed by a oneway ANOVA and Pearson correlation coefficients. Demographic variables measured were state of residence, race, educational level, marital status, employment status, attitude, income level, number of children, supplemental programs, and age of parent.

Findings revealed that Head Start parents did not have a significantly greater knowledge of infant/toddler development than non-Head Start parents who had more than one child. Developmental knowledge scores were higher for Head Start parents than non-Head Start first-time parents. All participating Head Start parents had at least two children, one in the Head Start program and one other child 25 months or younger. There were differences in developmental knowledge scores by state of residence, race, educational level, marital status, and employment status. Demographic variables found to have a positive correlation with developmental knowledge scores were attitude, income level, number of children, and age of parents. There was a negative correlation with the effect of supplemental programs. Programs tested for this effect were AFDC, Food Stamps, Medicaid, WIC, Social Security, and Head Start. A greater proportion of Head Start parents participated in these income-assistance programs, which may have influenced their scores for child development knowledge.

CHAPTER I

INTRODUCTION

Parent education materials are available in abundance to offer support and guidance to individuals in their parenting roles (Clarke-Stewart, 1978). Less than half of such reading materials are readable at an eighth grade level (Abram & Dowling, 1979). This contributes to making parent education materials out of reach for less-educated parents or those with poor reading skills. Many parents living below the poverty level fit this profile.

In response to the need to provide parent education materials for the below poverty level population, the Cooperative Extension Service has used age-paced newsletters in the states of California and South Carolina for teen parents, first-time parents, and low-income parents (Harriman, Wilson, & Hale, 1989). These newsletters are readable at approximately a sixth grade level.

Currently a study entitled "An Early Intervention Program for Parents of Young Children at-Risk" (hereafter called the Growing Together project) has been designed by Cooperative Extension specialists from the states of California, Delaware, Nevada, South Carolina, and Utah to evaluate the effectiveness of these newsletters. Data were collected in each of those five states.

Growing Together

The Cooperative Extension Service of the U.S. Department of Agriculture in conjunction with Administration for Children and Youth and Families (which encompasses Head Start) funded a two-year project to provide parent education materials to low-income families with children ages 36 months and younger. The project has been known as Growing Together.

Family life specialists from Cooperative Extension in the states of California, Delaware, Nevada, South Carolina, and Utah served as project directors and supervisors for the program in their individual states.

Participants in the project received an age-paced newsletter for 18 months. This newsletter provided information about growth expectations for children, nutrition, parent programs and resources, and guidance for parents in appropriate discipline techniques. Participants with children 12 months and younger received the newsletter each month. Those with children from 13 through 36 months of age received the newsletter every two months.

Participation in the project required the participants to complete a questionnaire at the beginning of the project. They agreed to complete a second questionnaire at the end of 18 months to provide posttest data. This study focused only on pretest data.

Purpose

Each of the parents in the sample were given a self-administered questionnaire designed to measure parental knowledge, attitudes, and behaviors. Assessing the factors which influence the knowledge levels of the parent helps determine the effectiveness of age paced-newsletters as a means of providing parenting information for low-income parents.

Head Start's cooperation in the project has been an exploratory measure to determine the value of the newsletters for the parents involved in their program.

Using only the pretest data from the Growing Together project, the following questions were addressed in this study:

1. What differences in knowledge of infant/toddler development exist among Head Start parents and other low-income parents participating in the study.
2. What demographic variables positively affect knowledge of infant/toddler development.
3. What implications do these findings hold in assessing the appropriateness of using age-paced newsletters as an educational tool for low-income parents.

CHAPTER II

REVIEW OF LITERATURE

Conditions of Poverty

Divorce, reduced employment opportunity for blacks (especially black males), and increased teen pregnancy rates are known symptoms in a societal disease called poverty. While scholars debate whether poverty is a cause or an effect (Auletta, 1982), the fact remains that in 1985 33,064,000 Americans lived in this condition (Besharov & Quin, 1987). There is no indication that poverty is going to go away in the near future. In 1979 persons in families who lived below the poverty level comprised 10.2% of the population. By 1987 nearly 1 in 6 families with children lived in poverty (United Way, 1989). Although poverty is multifaceted, demographic trends involving gender, race, and marital status of parents contributed to this increase.

Divorce and Female-Headed Households

Female-headed households in poverty rose in proportion from 23% in 1959 to 48% in 1979 and by another 15% in 1989 (U.S. Bureau of the Census, 1989). Since the majority of single-parent households are headed by women, researchers need to note that earning power for women is approximately sixty-five cents for each dollar earned by men (Weinberg, 1985). Female-headed households with children represented

21% of all families with children in 1985. However, they represented 56% of the families who fell below the poverty line (Besharov & Quin, 1987).

Black Male Unemployment

Data from urban cities reveal that only half of adult black males of all educational levels worked, even part-time, in 1988, compared with 80% who worked in 1969. Some industries centered in urban locations have moved to rural areas. A portion of blue-collar employment, once readily available to black males, has been replaced by white-collar specialized positions for which many blacks are untrained and have insufficient education (United Way, 1989; McLoyd, 1990). Reports from a Department of Labor study stated that only 42% of black males who lost their jobs between 1979 and 1984 were able to secure new employment. That percentage was in comparison to 63% of white males who found new employment in that same time period (Claude, 1986).

Higher education levels among young blacks do not necessarily boost the black male's employment potential. Black youth under age 24 who had four or more years of college had a 23.9% unemployment rate compared to a 8.6% unemployment rate for white youth (Claude, 1986).

Teen Pregnancy

Although teen pregnancy is not a sought after condition in American culture, it has gained greater

tolerance and is an accepted outcome of increased sexual activity among teenagers (Vinovskis, 1988).

Acceptance aside, the potential for poverty as a near permanent condition is greatest among pregnant teens. Never-married mothers account for the majority of long-term welfare recipients (Besharov & Quin, 1987). Comparing never-married and divorced mothers reveals that only 53% of never-married mothers have a high school education compared to 77% of divorced mothers. Among never-married mothers only 29% work full-time and only 18% receive child support. Consequently never-married mothers are three times more likely to receive welfare than divorced mothers. Although 50% of never-married mothers eventually marry, 27% of their marriages end in divorce, compared to a 16% divorce rate among divorced women who remarry (Besharov & Quin, 1987). The likelihood of never-married black mothers marrying is further decreased by the high unemployment rate of young black males (Claude, 1986).

Poverty Profile for the Five-State Study

Comparison data found in Table 1 illustrates some of the poverty conditions and demographic influences in the five states targeted for study.

Some of the same demographic influences reported as contributing to the rise of poverty are also cited in the literature concerning demographic variables that influence

Table 1

Demographic Profile of the Five States Targeted for Study (1988 Data)

Demographics	CA	DE	NV	SC	UT
US Per Capita Inc Rank	9th	13th	10th	43rd	47th
Percent Under Age 18	26.5	25.2	25.2	27.3	37.2
Percent Minority	38.6	20.3	18.9	31.9	8.2
Percent Metropolitan	95.7	65.9	82.6	60.5	77.4
Percent High School Grads	65.9	71.7	85.4	64.6	79.4
Percent Out of Wedlock Births	7.2	9.6	6.5	11.6	4.4

Population

CA=28,314,000 DE=660,000 NV=1,054,000 SC=3,470,000 UT=1,690,000

Per Capita Income

CA=\$19,929 DE=\$18,483 NV=\$19,269 SC=\$13,634 UT=\$13,079

(Kids Count, 1991)

knowledge of developmental levels of children among poverty level or low-income parents.

Parental Knowledge and Expectations

Parents who have realistic expectations about their children's developmental levels are most likely to create an appropriate and challenging environment for their child (Miller, 1986).

Conversely, when parents have inappropriate expectations of their children, the frustration they experience is believed to contribute to maltreatment or abuse of children (Twentyman & Plotkin, 1982). Distorted expectations of child development coupled with parents' poor problem-solving skills correlate highly with traits of abusive parents (Azar, Robinson, Hekimian, & Twentyman, 1984). Bavolet (1989) further asserts that the abusive parents have inadequate perceptions of self as well as unrealistic expectations of their children.

Previous studies indicate that parents who have clear and realistic expectations about their children's developmental phases are at lower risk for abusive behavior toward their children (Belsky, 1984).

Child abuse is more prone to occur if children are ill or chronically irritable. Without knowledge of normal child development and behavior, inexperienced or poorly educated parents often do not know what are normal childhood diseases compared to chronic illnesses (Marotz, Rush, & Cross, 1985).

Their underprivileged children may suffer learning disorders, loss of learning time during critical development stages, and physical impairment (Birch & Gussow, 1970).

Demographic Variables

Studies citing demographic variables contributing to parents' knowledge of infant's development have considered the following factors:

Race

Differences in ethnic cultures are reported as a major influence in affecting parental developmental expectations (Goodnow, Cashmore, Cotton, & Knight, 1984; McGillicuddy-DeLisi, 1982; Ninio, 1988). Specifically in Mexican-American cultures, the level at which the parent adopts the values of American culture will greatly alter the values and expectations they have of their children (Gutierrez & Sameroff, 1990).

A test using the Adult-Adolescent Parenting Inventory revealed that black adolescents score significantly lower on measures of knowledge of infant development than white adolescents (Fox, Baisch, Goldberg, & Hochmuth, 1987).

Income Level of Parent

Determining to what extent income level among the low-socioeconomic status (SES) population has been measured is difficult. Most studies using educational achievement as the primary indicator of low-SES eliminate the measure of

income. Findings from a study using income level to determine SES indicate that lower levels of parenting knowledge appear to be characteristic among the low-SES population (Parks & Smeriglio, 1986). These authors measured parenting knowledge using three scales: two knowledge assessment scales, the ICI or Infant Caregiving Inventory, the Knowledge of Environmental Influences on Development (KEID) scale, and the Home Observation Measurement of the Environment (HOME) scale. The HOME scale measures physical, social, and emotional caregiving of parents (Bradley & Caldwell, 1984).

Educational Level of Parent

Available studies of low-SES parents use educational level rather than income per se as the determining factor for SES (Smeriglio & Parks, 1983). As a result, researchers rarely measure educational level within low-SES populations. Empirical evidence regarding the effect of the educational level is minimal. However, a study of younger and older adolescents, comparing college freshmen and seniors, revealed that knowledge levels of infant development did not increase with increased educational level (Shaner, Peterson, & Roscoe, 1985). This finding was contrary to a study of high school students whose child development knowledge scores increased as grade level increased (Johnson, Loxtercamp, & Albanese, 1982). The Johnson study used the Iowa Child Development Test (ICDT) developed for

adolescents. Participants in these studies were not parents at the time of the studies. These findings therefore reflect only child development knowledge by level of education without confounding the variable with the presence of a child.

Marital Status of Parent

Although studies have not examined the effect of marital status on knowledge scores, single parents of low-SES have been reported to receive lower social support and are the least likely group of parents to consult professionals, peers, or family with parenting concerns (Hughes & Durio, 1983).

Number of Children

Stevens (1984) found that caring for an infant influenced what individuals knew about development. Those parents with more children scored significantly higher on the KEID scale.

Researchers disagree in the literature about whether the previous child rearing experience increases parental knowledge of developmental milestones. Linde & Englehardt (1979) developed the Parental Knowledge of Infant Development (PKID) scale for their study and found that first-time parents knew very little about infant development. Their findings were further supported by assertions that belief systems about development were affected by both SES and number of children. The parenting

experience was reported to alter parents' knowledge (McGillicuddy-DeLisi, 1982). However Ninio (1988) argues that only when parents are responsive observers can they glean from infant cues. This response is not found as often among low SES mothers. Their expectations remain unaltered even in the presence of an infant.

Age of Parent

Empirical tests examining age as an independent variable have not indicated that age determines parental knowledge. A comparison of younger and older adolescent mothers revealed that all mothers in the study possessed knowledge deficits concerning developmental stages of infants. Parents' knowledge in the study was tested using the Field scale created by a researcher of the same name which was designed to evaluate knowledge parents have about the average age at which infant developmental milestones occur. Only the youngest group of mothers appeared to have significantly less knowledge of infant development in this study (Reis, 1988). Findings from an earlier study indicated that mothers of all ages manifested some misunderstanding of developmental stages as well. However, the teenage mothers had significantly lower knowledge scores (Vukelich & Kliman, 1985). Their conclusions were based on measurement of knowledge levels using the Parent Expectation Scale (PES).

Shaner et al. (1985) found in a study of older adolescents that these young women overestimated as well as underestimated children's developmental stages. Age of the adolescent did not significantly affect knowledge scores.

Adolescent mothers enrolled in public school parenting programs scored high on ICI knowledge assessment scales, but program effect had not been measured (Parks & Smeriglio, 1983).

Assessment of parenting skills using the Field scale and HOME inventory revealed that parents who had less knowledge were those of younger ages, but age did not affect parenting skills (Reis, Barbera-Stein, & Bennett 1986).

Attitude

Lower-SES parents are reported to have less confidence in their ability to influence their child (Allen, Affleck, McGrade, & McQueeney, 1984). Rainwater (1970) asserted that low-SES persons may not have the resources to realize their hopes, which may in part account for this feeling of helplessness. Young parents especially do not receive adequate professional counseling during pregnancy (Twentyman & Plotkin, 1982).

Employment Status of Parents

Knowledge of children's developmental stages was found positively related to occupational level of mature mothers in a comparison of mature and teen mothers (Vukelich & Kliman, 1985). Teenage parents are less likely to be

married and only 29% of never-married mothers work full-time (Besharov & Quin, 1987).

Parenting Programs and Informational Needs

When parents consult any source of information, they report that it is out of need for understanding of child development. A majority of parents (96%) consult reading material at least occasionally (Geboy, 1981). Parents look first to their parents of origin, next to physicians, and then to reading material as their sources of information (Kliman & Vukelich, 1985). These findings are from middle-class samples and may not be generalizable to low-SES parents.

Programs for parents are offered by public schools, social service agencies and health care facilities. However, empirical evidence is needed to assess the gains in developmental knowledge of parents who participate in such programs (Parks & Smeriglio, 1983). Evidence suggests that when parental knowledge was the sole interest of the program, targeting a few specific parenting behaviors appeared as the most effective means of increasing that knowledge (Stevens, 1978).

Stevens (1978) suggests that programs must be sensitive to racial or cultural backgrounds. Designing programs for low-income Hispanic parents presents unique challenges. Mexican-American women prefer group setting with both parents in attendance. Reading materials are

rated as the least helpful source of information by these women (Powell, Zambrana, & Silva-Palacios, 1990).

Understanding of parents' information needs should also be considered (Hughes & Durio, 1983). Harman & Brim (1980) caution that educators must find ways of assessing the actual desired information of the parents rather than imposing their own preconceived perception of what the parents need. Readiness or immediate need for information may also influence what the parent will learn from any source. Programs such as those for urban, low-income teen-aged parents are in condensed form and conducted at immunization centers (Dibble, 1981).

The Head Start Program

During the 1960s President John F. Kennedy stated that "the prevention of adult poverty and dependency must begin with the case of dependent children." The project of Head Start was conceptualized at that time and became part of Lyndon B. Johnson's "war on poverty" (Hill & Ponza, 1983). Head Start was based on the assumption of a "culture-of-poverty" and that the condition of poverty was perpetuated through intergenerational transmission (Oyemade, 1985).

As mentioned, low-SES parents are at greater risk for abusing their children. In the inception of Head Start, the "culture of poverty" theory presumed that the low-SES persons needed only to acquire middle class values to break this cycle of poverty. By educating the children and

parents in middle class ways, these individuals could rise above the attitudes and behavior that trapped them in this condition (Zigler & Anderson, 1979). Auletta (1982) contends that societal conditions are the root cause of a low-SES culture.

Observational studies of the sixties began looking at parent-child interaction among social classes (Walters, Connor, & Zunich, 1964; Bee, VanEgeren, Streissguth, Nyman and Leckie, 1969). They found that lower class mothers tended to interact less with their children and were less helpful and directive. In problem-solving tasks they were less likely to promote verbal response from their child and were more critical and controlling.

These stereotypes from the sixties drew criticism from researchers. Farran & Haskins (1980) argue that less mother-child interaction among low-SES mothers could be the effect of having more children, having to work outside the home and therefore having less time to interact with their children.

However, were it not for the "culture of poverty" and other stereotypes of low SES families, Head Start may never have been organized. The likelihood of an experimental idealology being tested on a national level seems almost unbelievable (Zigler & Anderson, 1979). Regardless of whether the assumptions of a cycle of poverty were faulty, Head Start is now in its 25th year.

Head Start appears to be the one intervention program that has achieved the most success or at least had the longest life. It presently works on the assumption that low-income parents need the opportunity to help themselves (Skerry, 1983). From its beginning, Head Start has included the element of parent involvement. Parent involvement in Head Start is mandated by law (Washington & Oyemade, 1987). Payne, Mercer, Payne, and Davison (1973) list four areas of involvement for Head Start parents:

1. Participation in the process of making decisions about the nature and operation of the program.
2. Participation in the classroom as paid employees, volunteers or observers.
3. Educational activities for the parents which they have helped to develop.
4. Welcoming Center staffs into their home for discussions of the ways in which a parent can contribute to the child's development at home.

They contend that on what level or how much a parent participates may influence outcome.

Parents who participate in Head Start have been described as better educated, younger, and having fewer children than in other low-SES groups. In the preliminary report of the Head Start Evaluation, Synthesis, and Utilization Project, the parent involvement activities were reported as being "designed to benefit the entire Head Start family and provide additional resources" (Harrell, 1983).

Several programs have been incorporated to further Head Start's parental involvement component. They are Parent and Child Centers (PCC) for families of the child under three; Project Follow Through for school age children; the Child

and Family Mental Health Project to provide psychological services to families; Health Start; Home Start; Education for Parenthood; the Child Development Associate (CDA) Credentialing and Training Program to train day care workers; and the Child and Family Resource Program (CFRP) which begins at the prenatal period and extends until the child is age eight (Dittman, 1980; Zigler, 1985).

Head Start presently receives its accreditation from the National Association for the Education of Young Children (NAEYC). All Head Start programs must adhere closely to the NAEYC standards of Developmentally Appropriate Practice. Parents involved in Head Start are likely to be aware of these standards through their participation in the program.

Summary

From the review of literature, I concluded that demographic variables influenced both the condition of poverty and the resulting knowledge levels of the low-SES population. The dependent variable of parents' knowledge were correlated with the following independent variables: race, income level, educational level, marital status, number of children, age of the parent, attitude, and participation in supplemental programs.

Parents of low-SES need information about appropriate developmental stages of their children to facilitate greater understanding of their children's behavior. Parents who

have more tolerance are at reduced risk for abusive behavior toward their children.

Programs for education of low-SES parents must be sensitive to ethnic values, designed for parents with lower educational levels, and sympathetic to the parents' restricted opportunities for participation (i.e. lack of transportation, available or affordable child care, or necessity to work). They must identify the needs of the target audience. They should determine whether needs of parents with more than one child are the same as those for first-time parents, or if parents enrolled in supplemental programs such as Head Start have different information needs.

Objectives and Hypotheses

The review of literature suggested that demographic factors may influence parents' knowledge of developmental stages. The objective of this study was to test which of the following demographic factors predicted knowledge of developmental stages: race, income level, level of parent education, marital status, number of children, age of parent, employment status of parent, or participation in supplementary programs. Attitude measurement of how the parents felt about themselves and the parenting experience, was also used as an independent variable in predicting parents' knowledge. Questions used to measure attitude are shown in Appendix A. The parents who have been involved in

Head Start were tested against all other parents in the study for knowledge of developmental levels. All factors were examined in tests of the following null hypotheses:

There is no significant differences in child development knowledge of parents as related to the following variables:

1. Parents who have been involved in Head Start and non-Head Start parents who have more than one child.

2. Parents who have been involved in Head Start and first-time parents.

3. Parents' state of residence.

4. Race of the parents.

5. Educational level of the parents.

6. Marital status of the parents.

7. Employment status of the parents.

8. Attitude of the parents.

9. Income level of the parents.

10. Number of children the parents have.

11. Number of supplemental programs in which the parents participate.

12. Age of the parents.

CHAPTER III

METHODOLOGY

Design

In order to enroll in the Growing Together project, parents had to fill out a self administered questionnaire designed by Extension Specialists: Dorothea Cudaback, California Cooperative Extension Human Relations Specialist; Glen Jenson, Utah Cooperative Extension Family and Human Development Specialist; Sally Kees-Martin, Nevada Cooperative Extension Family Life Specialist; Pat Nelson, Delaware Cooperative Extension Family & Child Development Specialist; and Emily Wiggins, South Carolina Cooperative Extension Family Life Specialist. The questionnaire design was an alternative to existing scales of measurement. Considering that so many factors influence parents' perceptions, a number of scales have been developed and cited: the Adult-Adolescent Parenting Inventory, Infant Caregiving Inventory (ICI), Knowledge of Environmental Influences on Development (KEID), Home Observation for Measurement of the Environment (HOME) inventory, Iowa Child Development Test (ICDT), Parental Knowledge of Infant Development (PKID), the Field scale, and Parent Expectation Scale (PES). The scale used in this study was chosen for compatibility with information distributed in the age-paced

booklets sent to parents in the project. The questionnaires contained demographic information and 29 Likert-type scale questions. These questionnaires constituted the pretest from which the data for this study was drawn. As part of the Growing Together evaluation study, parents filled out a similar questionnaire at the end of the project. However, this phase of the research does not address the evaluation and posttest results of the Growing Together project. Baseline information is the foremost objective.

Sample

In all five states parents were selected from families who had children in Head Start. After first obtaining as many participants from Head Start as possible, participants were next selected from Women, Infants, and Children (WIC) programs, teen parent centers, or any other agency serving low income families. Researchers from all states except Utah recruited from teen mother programs. A requirement of the project was to recruit a minimum of 300 participants in each of the five states. The actual number of participants recruited in each state exceeded 300 to allow for attrition. Data collected from all five states included 2,191 participants.

Data Collection Procedures

Not all supervisors in each of the states experienced the same success in recruiting Head Start parents. South

Carolina project supervisors mailed over 3,000 invitations to Head Start parents and received 30 responses. Recruiters in California found that it was more successful to visit Head Start Orientation or parent meetings to solicit participation. However, most of the data from California was obtained at WIC and teen parent centers. In Nevada, project supervisors first obtained a list of all newborn infants in the state and then linked names to low-income organizations. Most of the Utah sample was obtained at orientation meetings for Head Start parents. This included eleven different locations throughout the state. The program was explained to parents in a five minute presentation. At the conclusion of the orientation meeting, project workers were seated at a table where parents could fill out the questionnaire and information sheet. Any questions the parents had could be answered at this time.

Compared to researchers in other states, the Utah project had the most successful recruitment among Head Start parents. Not all Head Start centers in other states were as willing to allow recruiters to attend their meetings.

After recruiting all parents who would participate from Head Start, project supervisors in Utah then recruited from other agencies. The WIC program was the source of most recruitment in all states. In most cases project workers were seated in waiting rooms at WIC offices. The Utah WIC office allowed the project supervisor to present the Growing Together project during regular class time. After the

presentation, parents eligible to participate filled out questionnaires while the other parents picked up their food vouchers.

Selected county Extension agents provided lists of low-income families in their areas. Invitations were mailed to these parents who completed the questionnaires and returned them by mail.

In all methods of recruitment, project supervisors explained to parents that participation was voluntary and that they did not have to answer any questions they did not wish to answer in the questionnaire. They were asked to fill out an information sheet with their name, address, phone number, youngest child's birthdate or expected due date, family size, and annual income. This information sheet contained a number that corresponded with the number on their questionnaire. Supervisors assured parents that only the questionnaire, which did not contain their name, would be sent to the University of California at Berkeley for processing of the information. The parents were also assured that researchers in each state would keep their information sheet in order to have both an address to mail the age-paced booklets and a corresponding code number to mail the posttest at the end of the year.

Measurement

The questionnaires included a section to obtain demographic data about the parents such as marital status,

race, gender, employment, income, educational level, number of children, and age. Some questions asked directly what supplemental programs parents were using at present or had used in the past year. Twenty-nine Likert-type scale questions were posed addressing subjects of discipline, safety, nutrition, growth expectancies, and nurturance. Some were attitude questions concerning how the parents felt about themselves and the parenting experience. Questions selected for the measurement of child development knowledge comprised the independent variable for knowledge scores. These questions are shown in Appendix A.

Data Analyses

Developmental knowledge questions from the Likert-type scale were assigned a score using 1 as the least correct and 5 as the most correct. In cases where strongly agree was an inappropriate answer, then strongly agree received a score of 1 and strongly disagree received a score of 5. This reversal was coded inversely. The total score was a simple sum of these scored answers.

Attitude questions about feelings of competence as a parent received the same treatment with 1 as the most negative attitude and 5 as the most positive attitude. These answers were also coded inversely when appropriate. Attitude was then treated as a continuous independent variable.

Simple t-tests were used to compare knowledge scores of Head Start and non-Head Start parents who had more than one child, Head Start and first-time parents, and parents in locations in each of the five states.

A univariate analysis of dependent variables of race, income level, educational level, marital status, number of children, parents' age, attitude, employment status, and participation in supplemental programs determined the effect of each one on the independent variable of knowledge of developmental levels.

CHAPTER IV

RESULTS

Characteristics of the Sample

The total number of persons participating in the pretest phase of the Growing Together project were 2,191. Parents in the project were either pregnant and expected to deliver by March 1, 1990, or had a child whose age was between newborn and 25 months. Among the 2,191 participants in the sample only 44 were male, too small of a representation for consideration of another demographic variable used in hypothesis testing. However, 2,004 participants in the sample were mothers, therefore, the most accurate description of sample is mothers.

The mean income (\$1,153.86 per month) of the sample was higher than the poverty level (\$11,650 per year) for a family of four in 1988 (United Way, 1989). Residents in South Carolina and Utah had the lowest mean income which agrees with per capita figures given for those states (Kids Count, 1991).

Approximately 82% of the parents participated in programs of American Families with Dependent Children (AFDC), Food Stamps, Medicaid, WIC, Social Security, or Head Start. Over half (53.4%) of the sample were not married. The majority (63.1%) had at least a high school diploma or

greater. Over half (54.3%) of the sample were caucasian. Characteristics of the sample are shown in Tables 2 & 3.

Characteristics of Head Start vs. Non-Head Start Sample

A demographic comparison of the Head Start and non-Head Start parents in the sample is shown in Tables 4 through 9. Percentage distributions indicated that these two subsamples were similar in race and employment status. The Head Start parents had a little higher overall education level. Only 24.4% of Head Start parents compared to 38% of the non-Head Start parents had less than a high school education. A greater percentage of the Head Start parents had graduated from high school and attended either vocational schools or college.

Greater differences in Head Start and non-Head Start parents were found in comparisons of marital status, services used, income levels, age, and family size. Non-Head Start parents had a higher percentage of single parents. There were 45.5% of single non-Head Start parents compared to 25.2% of single Head Start parents. Percentage differences found in the use of supplemental financial aid programs indicated the greatest difference between the compared groups. A greater percentage of Head Start parents were assisted by AFDC, Food Stamps, Medicaid, WIC, and Social Security.

Respondents reported their gross monthly income on the Growing Together questionnaire. This question becomes

Table 2

Respondent Characteristics

Characteristic n=	Total 2191	CA 806	DE 310	NV 407	SC 318	UT 350
<u>Age</u>						
Mean	23.2	20.9	22.3	24.6	24.7	26.4
<u>Race</u>						
Black	22.4%	18.0%	44.9%	12.0%	48.9%	0.3%
Asian	0.3	0.2	0.0	0.0	0.0	0.1
Hispanic	16.3	35.9	7.9	6.7	0	5.5
White	54.3	35.9	44.6	74.7	49.5	84.9
Native Amer.	0.2	0.1	0.0	0.05	0.0	0.05
Other	0.2	0.1	0.03	0.03	0.0	0.03
No answer	6.3	9.8	2.57	6.52	1.6	1.2
<u>Marital Status</u>						
Single	43.7%	62.2%	55.2%	30.3%	42.6%	8.1%
Div./Sep./Wid.	9.7	8.4	9.4	8.9	11.9	11.6
Married	46.6	29.4	35.4	60.8	45.5	80.4
<u>Highest Grade Completed</u>						
11th Gr. or Less	36.9%	52.4%	40.7%	26.2%	31.6%	15.6%
GED or HS Dipl.	29.5	24.1	31.6	28.7	39.0	32.3
Voc Training	10.5	8.4	10.1	12.6	13.4	10.7
Some College	17.6	12.5	13.0	23.3	12.8	31.1
College Degree	4.1	1.8	3.3	7.7	2.6	7.5
Postgrad. Work	1.3	0.8	1.3	1.5	0.6	2.9

Table 3

Respondent Financial Characteristics

Characteristic	Total	CA	DE	NV	SC	UT
n=	2191	806	310	407	318	350

Out of Home Employment Per Week

Do Not Work	70.7%	78.6%	63.1%	65.7%	65.6%	69.5%
1-20 Hours	11.6	10.4	11.3	10.9	12.6	16.1
21+ Hours	17.7	10.9	25.6	23.5	23.6	14.4

Monthly Income

Mean	\$1154	\$1176	\$1176	\$1461	\$817	\$1037
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Services Used Last in 12 Months

AFDC	29.8%	48.4%	24.5%	13.2%	25.2%	15.8%
Food Stamps	34.6	37.7	33.4	24.6	33.0	41.7
Medicaid	43.9	62.1	41.4	12.9	44.1	41.1
WIC	66.2	58.7	61.6	60.3	75.8	85.6
Social Security	5.5	8.0	6.3	2.7	4.6	3.2
Head Start	9.5	6.1	3.6	4.5	17.0	21.3

Table 4

Racial Comparison of Head Start and Non-Head Start Parents

Race	Head Start		non-Head Start	
	<u>n</u>	%	<u>n</u>	%
Black	52	26.0	418	21.9
Asian	4	2.0	57	3.0
Hispanic	22	11.0	322	16.8
White	117	58.5	1035	54.1
Native American	3	1.5	46	2.4
Other	2	1.0	34	1.8

Table 5

Comparison of education levels of Head Start and Non-Head Start parents

Educational Level	HS		non-HS	
	<u>n</u>	%	<u>n</u>	%
11th Grade or less	49	24.4	729	38.0
GED or High School Grad.	71	35.3	555	28.9
Voc./Tech. Training after HS.	28	13.9	196	10.2
Some College	47	23.4	330	17.2
4-year College Degree	5	2.5	82	4.3
Postgrad. Work or Degree	1	.5	27	1.4

Table 6

Comparison of Marital Status of Head Start and Non-Head Parents

Marital Status	Head Start		non-Head Start	
	<u>n</u>	%	<u>n</u>	%
Single	51	25.2	876	45.5
Div./Sep./Wid.	38	18.8	169	8.8
Married	113	55.9	882	45.8

Table 7

Comparison of Employment Status of Head Start and Non-Head Start Parents

Employment Status	Head Start		non-Head Start	
	<u>n</u>	%	<u>n</u>	%
Do Not Work	147	72.4	1362	70.5
Work 1-20 Hrs. Per Wk.	22	10.8	229	11.8
Work 21+ Hrs. Per Wk.	34	16.7	342	17.7

Table 8

Comparison of Participation in Supplemental Programs of Head Start and Non-Head Start Parents

Programs	Head Start		non-Head Start	
	n	%	n	%
AFDC	87	42.9	551	28.4
Food Stamps	124	61.1	617	31.8
Medicaid	102	50.2	839	43.3
WIC	151	74.4	1268	65.4
Social Security	14	6.9	104	5.4
Other	2	1.0	24	1.2

Table 9

Comparison of Parents' Age and Number of Family Members of Head Start and Non-Head Start Parents

Variables	Head Start		non-Head Start	
	n	Mean	n	Mean
Age	197	26.8	1844	22.8
Number Family Members	202	5.11	1912	4.26

subject to estimates, misunderstanding, and over or under reporting. True under-poverty-level parents were therefore defined as those who received some sort of assisted income such as AFDC, Medicaid, or Social Security. Using assisted income as the defining factor indicated that Head Start parents had a lower income level than non-Head Start parents with more than half of Head Start parents receiving assisted income.

The mean age of Head Start parents was four years older than non-Head Start parents, and Head Start parents had a mean of one more person per family than did the non-Head Start parents. These characteristics of the sample were not typical since the literature indicated that Head Start parents, overall, were younger and had less children than other parents in similar parent programs.

Hypotheses Testing

Hypothesis 1: Parents Who have been Involved in Head Start and Non-Head Start Parents Who have More Than One Child.

Knowledge scores of Head Start and non-Head Start parents were compared using a t-test. The t-test, as seen in Table 10, indicated there was no significant difference in mean knowledge scores. These results indicated no significant differences between the knowledge scores of Head Start and non-Head Start parents, therefore the null hypothesis was not rejected.

Table 10

Differences in Knowledge of Developmental Levels Between
Head Start and Non-Head Start Parents with More Than One
Child

Variables	<u>n</u>	MKS	<u>t</u> Value	df	<u>p</u> Value
Head Start	198	4.00	.98	1,006	.325
Non-Head Start	810	4.02			

Note. Probability significant at <.05.
 MKS= Mean Knowledge Score

Hypothesis 2: Parents Who have
been Involved in Head Start and
First-Time Parents.

Results of a t-test between knowledge scores of Head Start vs. first-time parents, shown in Table 11, revealed significant differences in mean knowledge, therefore, the null hypothesis was rejected. Head Start parents had significantly higher mean knowledge scores than the first-time non-Head Start parents.

Oneway ANOVA was computed to test for significant differences in knowledge scores for Hypotheses 3-7.

Hypothesis 3: Parents' State
of Residence.

Results shown in Table 12 reveal that participants from Utah had significantly higher mean knowledge scores than parents in any of the other four states. Nevada residents

Table 11

Differences in Knowledge of Developmental Levels Between
Head Start and Non-Head Start First-Time Parents

Variables	n	MKS	t Value	df	p Value
Head Start	198	4.00	-2.66	1,236	.008
First-time	1,040	4.01			

Note. Probability significant at <.05.
MKS= Mean Knowledge Score

Table 12

Rank Order of Differences in Knowledge of Developmental
Levels by Parents' State of Residence

Variables	n	MKS
Delaware	291	3.90 a
South Carolina	303	4.00 a
California	759	3.90 a
Nevada	399	4.02 b
Utah	343	4.16 c

Note. Any two means followed by at least one common letter do not differ from each other. A complete ANOVA table is shown in Appendix B. MKS= Mean Knowledge Score.

F Ratio= 34.6

p < .0005

had significantly higher knowledge scores than parents from all other states except Utah. Because significant differences existed among participants by state of residence, the null hypothesis was rejected. This result suggested that state of residence did make a difference in knowledge scores.

Hypothesis 4: Race of the Parents.

Findings of significant differences in knowledge scores as determined by race are shown in Table 13. White parents scored significantly higher than all other races. Hispanic,

Table 13

Rank Order Differences in Knowledge of Developmental Levels of Parents by Race

Variables	n	MKS
Asian	61	3.70 a
Black	451	3.79 a
Hispanic	328	3.87 b
Native Amer.	49	3.98 b
Other	35	3.90 b
White	1,129	4.08 c

Note. Any two means followed by at least one common letter do not differ from each other. A complete ANOVA table is shown in Appendix B. MKS= Mean Knowledge Score.

F Ratio= 52.69

p < .0005

Native American, and other race scored significantly higher than black and Asian races but were not significantly different from each other. Black and Asian parents scored significantly lower than all other races but not significantly different from each other. The null hypothesis was rejected since race made a difference.

Hypothesis 5: Educational Level of the Parents.

Tested results, shown in Table 14, indicated that the group with the lowest level of education had significantly lower mean knowledge scores than other groups. Parents who had some college, a college degree, or had completed either

Table 14

Differences in Knowledge of Developmental Levels by Educational Level of Parent

Variables	<u>n</u>	MKS
11th Grade or less	757	3.82 a
GED or High School Grad.	608	3.98 b
Voc./Tech. Training after HS.	218	4.01 b
Some College	369	4.13 c
4-year College Degree	87	4.17 c
Postgrad. Work or Degree	25	4.13 c

Note. Any two means followed by at least one common letter do not differ from each other. A complete ANOVA table is shown in Appendix B. MKS=Mean Knowledge Score.

F Ratio= 44.23

p < .0005

significantly higher knowledge scores than other parents. The null hypothesis was rejected because there were differences in knowledge scores based on educational level.

Hypothesis 6: Marital Status of the Parents.

Results shown in Table 15 revealed that single (never-married) parents had significantly lower mean knowledge scores than all other marital status parents. The group of married parents had significantly higher knowledge scores than single parents. Divorced, separated, and widowed parents also had significantly higher knowledge scores than single parents. These two groups, however, were not significantly different from each other in their level of knowledge. The null hypothesis was therefore rejected because there were differences in child development knowledge determined by the marital status of the parents.

Table 15

Differences in Knowledge of Developmental Levels of Parents by Marital Status

Variables	n	Mean Knowledge Score
Single	899	3.84 a
Div./Sep./Wid.	199	4.03 b
Married	976	4.07 b

Note. Any two means followed by at least one common letter do not differ from each other. A complete ANOVA table is shown in Appendix B.

F Ratio= 15.58

p < .0005

Hypothesis 7: Employment
Status of the Parents.

Unemployed parents had significantly lower knowledge scores as shown in Table 16. Differences existed in the knowledge scores so the null hypothesis was rejected, suggesting that child development knowledge was affected by the employment status of the parents.

Table 16

Differences in Knowledge of Developmental Levels of Parents
by Employment Status

Variables	<u>n</u>	Mean Knowledge Scores
Do Not Work	1,468	3.93 a
Work 1-20 Hrs. Per Wk.	243	4.06 b
Work 21+ Hrs. Per Wk.	368	4.02 b

Note. Any two means followed by at least one common letter do not differ from each other. A complete ANOVA table is shown in Appendix B.

F Ratio= 15.57

p < .0005

Linear correlations between the continuous variables of attitude, income, number of children, supplemental programs, and age of parent were examined using Pearson correlation coefficients. These correlations, shown in Table 17 were used to test hypotheses 8 through 12.

Table 17

Pearson Correlations Between Continuous Variables and
Developmental Knowledge Level of Parents

Variables	<u>n</u>	<u>R</u>
Attitude	1,942	.1196**
Income level	1,253	.2622**
Number of children	2,000	.1577**
Supplemental programs	2,051	-.0507*
Age of parent	1,986	.2521**

* $p < .05$

** $p < .01$

Hypotheses 8-12: Attitude,
Income Level, Number of
Children, Supplemental Programs,
and Age of the Parents.

Supplemental programs were significantly correlated with knowledge scores in a negative direction. This finding permitted the researcher to reject the null hypothesis since there was a difference in knowledge scores based on supplemental program participation. The null hypotheses that attitude, income level, number of children, and age of he parent do not significantly influence knowledge scores were rejected because each variable revealed significant positive correlations with knowledge of child development.

The finding that supplemental programs have a significant negative correlation with child development knowledge called for further examination of program effect.

T-tests were computed individually for each of the supplemental programs to determine which, if any, programs had significant positive effect on knowledge scores. Results shown on Table 18 indicated that only those parents who were involved in the WIC program had significantly higher knowledge scores. Those who received AFDC, Medicaid, and Social Security scored significantly lower than parents who did not.

Table 18

Results of t-test Comparisons of Participants in
Supplemental Programs

Variables	n	MKS	t Value	df	p Value
AFDC	595	3.90	5.19	2049	.0005
Non AFDC	1,456	4.00			
Food Stamps	707	3.96	.91	2049	.361
Non Food Stamps	1,344	3.97			
Medicaid	897	3.94	3.06	2049	.002
Non Medicaid	1,154	3.99			
WIC	1,360	3.99	-2.62	2049	.009
Non WIC	691	3.94			
Social Security	112	3.85	3.38	2049	.001
Non S.S.	1,939	3.98			
Other Programs	26	4.04	-.97	2049	.333
No Other Progs.	2,025	3.97			

Note. Probability significant at <.05. MKS= Mean Knowledge Score.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Parents in the Head Start program did not score significantly higher on knowledge questions than other parents in the sample who had more than one child. This finding of no difference raised the question of why? The demographic profile of Head Start and non-Head Start parents revealed that Head Start parents were similar to the other parents in the sample in percentage of race, employment, and educational level. A slight difference in educational level occurred in the comparison of 11th grade or less (24.4% H.S., 38.0% non H.S.) and high school graduates (35.3% H.S. and 28.9% non H.S.). Head Start parents were older and had more children than other parents in the sample. The positive correlation between age of parents and number of children with knowledge scores made higher knowledge scores for Head Start parents an anticipated result. However, the greatest difference between Head Start and non-Head Start parents was the level of participation in supplemental services. More than half of the Head Start parents received some form of assisted income. Parents who are the most impoverished and dependent on income assistance appear to be negatively affected by dependence on supplemental income programs.

Head Start parents scored significantly higher than first-time parents on knowledge questions. Considering the large percent of unmarried mothers in the non-Head Start group, this result was expected. All Head Start mothers either had or were expecting to have at least two children. They had at least one child in Head Start and one other child in the Growing Together project. Their number of children, lower percentage of single mothers, and older mean age all appear to have contributed to significantly higher knowledge scores.

The higher knowledge scores of parents in the state of Utah was not surprising when demographic information about the parents was examined. Parents in Utah had the highest mean age (26.4), were more likely to be married (80.4%), were predominantly white (84.9%), and had the highest education level (only 15.6% had 11th grade or less education). All of the mentioned characteristics were correlated with higher knowledge scores.

Independent variables of race, income level, educational level, marital status, number of children, age of parent, employment status, and attitude were all found to positively affect the dependent variable of knowledge of infant/toddler development.

The underrepresentation of Native American, Asian, and races coded as "other" left results of their knowledge scores without merit. A larger subsample of these races is

required for any interpretation or implications of the results.

Reported scores of white, black, and Hispanic races replicated the earlier findings of Fox, et al. (1987). Blacks were found to score lower than persons of other races on measures of knowledge of infant development. This finding may be a result of the plight of the black race in American culture. More than any other race, blacks are strongly represented within the most devastating poverty affects (i.e. pregnancy out of wedlock, pregnancy at younger ages, unemployment, assisted income, and lower education levels).

Higher income level, as it correlates with higher knowledge scores, may be viewed as a liberating mechanism for the parents. It is important to discuss this correlation in conjunction with the finding of significant negative effect of supplemental programs. Parents who have assisted income through AFDC, Medicaid, and Social Security, comprise the most impoverished and dependent. A higher level of income possibly liberates the parents from program dependency. Perhaps a parent of higher income also has more opportunity to take advantage of opportunities for self-improvement.

Educational level, marital status, age, and employment status might well be mentioned together rather than independently. In both the literature and the findings of this study the youngest, least educated, unemployed, and

single parents have the lowest levels of developmental knowledge (Johnson, et. al., 1982; Reis, et. al., 1986; Vukelich & Kliman, 1985; Reis, 1988).

Despite controversy in the literature concerning the effect of the number of children (Linde & Englehardt, 1979; McGillicuddy-DeLisi, 1982; Stevens, 1984; Ninio, 1988), the findings here supported the argument that the parenting experience is a teaching one for knowledge of developmental timetables. Number of children correlated positively with higher knowledge scores.

The positive correlation of attitude with knowledge scores seems rather self-evident. Parents who feel positive about the parenting experience tend to be those who are either in tune with developmental cues to learn from the parenting experience or who will be the most motivated to seek information if this is their first time at being a parent.

Only one hypothesis in the study was not rejected. Head Start parents did not have significantly higher scores of child development knowledge than other parents. Further examination suggested that the high proportion of Head Start parents were income assisted. Parents who were dependent on income assisted programs scored significantly lower on questions of developmental knowledge than other parents.

All results from hypothesis testing in this study must be examined with caution. Results reported showing

statistical significance remain without practical meaning because of the large sample size.

Limitations

The most severe limitation of this study is the specificity of its design. All questions were specific to material in the age-paced newsletters and therefore are not as generalizable to other audiences. The scale of measurement unique to the study may not be feasible for comparison with studies using other scales. The lack of standardization of measurement may be a serious drawback in all studies of developmental knowledge.

As mentioned previously, all data in the study are subject to caution because of the large sample size. Statistical significance was, in most cases, guaranteed. However, the significant correlations agree with most previous research. Although the results may not aggressively defend previous findings, they can lend understated support.

The choice of viewing only developmental knowledge questions also limits the scope of direction for posttest study. Data sharing from the Growing Together project dictates that each researcher involved works with a certain aspect of the data. The opposite side of that limitation is that several researchers are examining very pertinent and worthwhile topics that will ultimately give important baseline data for additional research.

Recommendations

With the current results in mind, the informational needs for Head Start parents are apparently not the same as those for first-time parents. Perhaps the most profound implications for the posttest phase of the Growing Together project lie with this finding. A posttest examination of developmental knowledge gains can determine the validity of this recommendation by comparing knowledge gains of first-time and Head Start parents.

Although one of the components of Head Start is referring parents to available social services, coordinators should keep in mind the goal of self-sufficiency for parents. Career skills workshops could be beneficial in helping Head Start parents achieve independence from programs.

In its long-term program life, Head Start has continually changed and expanded to keep pace with the changing world of the low-income parents it serves. It has tried to assist parents in career placement. Results from this study indicate that this may be a pivotal point in liberating parents from poverty status.

At this phase of research, results indicate that age-paced newsletters may best serve first-time parents in the enhancement knowledge of infant/toddler development. It is recommended in the posttest phase of the Growing Together project that an assessment should be made of the needs of

Head Start, non-Head Start, and first-time parents. It is suggested that researchers who are looking at discipline, language development, and other research questions, consider the implications for each of these subsamples.

The results of this study provide a strong contribution to the funding agencies. Cooperative Extension and Head Start may expand these research implications to meet the needs of parents in their programs.

The Growing Together project should assist overall in the continual study of how to best serve poverty-level parents who are struggling against a societal condition that has not been resolved. They have fewer resources, less opportunities, and need the commitment of dedicated research to help them gain the dignity and self-sufficiency for which they are striving.

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APPENDICES

Appendix A

Dear Parent,

Please take 15 to 20 minutes to answer all the questions in this survey. Your participation is voluntary and your answers will be confidential. Your name will not appear on this form or anywhere in our reports. If you would like to comment on any of the questions, please feel free to use the space in the margins.

Thank you for your help.

Sincerely,

1. Today's date _____
 MONTH DAY YEAR

2. Where have you gotten information about children and parenthood?
 (Please circle as many numbers as apply)
 - 1 FAMILY AND FRIENDS
 - 2 PREVIOUS EXPERIENCE CARING FOR CHILDREN
 - 3 CLASSES, MEETINGS, OR WORKSHOPS
 - 4 BOOKS
 - 5 MAGAZINES AND PAMPHLETS
 - 6 DOCTORS, NURSES, AND OTHER PROFESSIONALS
 - 7 TELEVISION
 - 8 OTHER (please describe) _____

3. What further information, if any, would you like about parenting?
 - 0 I DON'T NEED OR WANT FURTHER INFORMATION
 - I COULD USE MORE INFORMATION ABOUT:
 (Please circle as many numbers as apply)
 - 1 HOW CHILDREN GROW AND CHANGE
 - 2 FEEDING MY CHILD
 - 3 CHILD HEALTH AND SAFETY
 - 4 GAMES AND TOYS TO TEACH MY CHILD
 - 5 HANDLING THE STRESS OF PARENTHOOD
 - 6 GUIDANCE AND DISCIPLINE
 - 7 HELPING MY CHILD TALK
 - 8 TOILET TRAINING
 - 9 OTHER (please describe) _____

Please circle for each of the following statements whether you STRONGLY AGREE, AGREE, are NOT SURE, DISAGREE, or STRONGLY DISAGREE with the statement:

4. In general, I feel well prepared to be a parent.
(Please circle one number)

*

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

5. Parents should teach their children right from wrong by sometimes using physical punishment.
(Please circle one number)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

6. Babies and children learn by playing.
(Please circle one number)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

7. Being a parent is harder than I thought it would be.
(Please circle one number).

*

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

8. Praising children for things they do well can make them selfish and self-centered.
(Please circle one number)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

9. A two-year-old who is two or three months behind other two-year-olds in things they have learned to do is retarded. (Please circle one number)
- **
- 1 STRONGLY AGREE
 - 2 AGREE
 - 3 NOT SURE
 - 4 DISAGREE
 - 5 STRONGLY DISAGREE
10. I feel capable and on top of things when I am caring for my child. (Please circle one number)
- *
- 1 STRONGLY AGREE
 - 2 AGREE
 - 3 NOT SURE
 - 4 DISAGREE
 - 5 STRONGLY DISAGREE
11. Children are more likely to learn good behavior when they are spanked for misbehaving. (Please circle one number)
- 1 STRONGLY AGREE
 - 2 AGREE
 - 3 NOT SURE
 - 4 DISAGREE
 - 5 STRONGLY DISAGREE
12. If you punish children for doing something wrong, it's okay to give them a piece of candy to stop the crying. (Please circle one number)
- 1 STRONGLY AGREE
 - 2 AGREE
 - 3 NOT SURE
 - 4 DISAGREE
 - 5 STRONGLY DISAGREE
13. You must stay in the bathroom when your baby or toddler is in the tub. (Please circle one number)
- **
- 1 STRONGLY AGREE
 - 2 AGREE
 - 3 NOT SURE
 - 4 DISAGREE
 - 5 STRONGLY DISAGREE

14. I feel that I am successful most of the time when I try to get my child to do or not do something.
(Please circle one number)

1 STRONGLY AGREE
2 AGREE
3 NOT SURE
4 DISAGREE
5 STRONGLY DISAGREE

15. Babies should not be held when they are fed because this will make them want to be held all of the time.
(Please circle one number)

**

1 STRONGLY AGREE
2 AGREE
3 NOT SURE
4 DISAGREE
5 STRONGLY DISAGREE

16. Babies can understand what words mean before they can talk. (Please circle one number)

**

1 STRONGLY AGREE
2 AGREE
3 NOT SURE
4 DISAGREE
5 STRONGLY DISAGREE

17. I have had more problems raising my child than I expected. (Please circle one number)

*

1 STRONGLY AGREE
2 AGREE
3 NOT SURE
4 DISAGREE
5 STRONGLY DISAGREE

18. Shots (immunizations) can wait until a child is a year old because babies have natural protection from illness the first year. (Please circle one number)

**

1 STRONGLY AGREE
2 AGREE
3 NOT SURE
4 DISAGREE
5 STRONGLY DISAGREE

19. The two-year-old who says "no" to everything and tries to boss you around is probably trying to get you upset.
(Please circle one)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

20. The way babies and toddlers are raised will affect their intelligence. (Please circle one)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

21. Talking to babies about things they are doing helps them develop and learn. (Please circle one)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

22. By the time they're two months old, most babies are ready to begin eating solid foods.
(Please circle one).

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY AGREE

23. The more parents comfort crying babies by holding and talking to them, the more they spoil the babies.
(Please circle one)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

24. A cause of many accidents for one-year-olds is pulling something like a frying pan, a tablecloth, or a lamp down on top of them. (Please circle one number)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY AGREE

25. A good way to teach children not to hit is to hit back. (Please circle one number)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY AGREE

26. Some days you need to discipline your baby; other days you can ignore the same thing. It all depends on the mood you're in that day. (Please circle one number)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

27. You are your baby's first and most important teacher. (Please circle one number)

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

28. I enjoy being a parent. (Please circle one number)

*

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

29. At around 6 to 8 months, babies may become frightened or irritable when they are around strangers.
(Please circle one number)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

30. Babies do some things to make trouble for their parents (like crying a long time or soiling their diapers).
(Please circle one number)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

31. Most children are ready to be toilet trained by their first birthday. (Please circle one number)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

32. When toddlers turn down a new food the first time it is served, this means they don't like it.
(Please circle one number)

**

- 1 STRONGLY AGREE
- 2 AGREE
- 3 NOT SURE
- 4 DISAGREE
- 5 STRONGLY DISAGREE

33. When I think about myself as a parent I believe:
(Please circle one number)

*

- 1 I CAN HANDLE ANYTHING THAT HAPPENS
- 2 I CAN HANDLE MOST THINGS PRETTY WELL
- 3 SOMETIMES I HAVE DOUBTS, BUT FIND THAT I
HANDLE MOST THINGS WITHOUT ANY PROBLEMS
- 4 I HAVE SOME DOUBTS ABOUT BEING ABLE TO
HANDLE THINGS
- 5 I DON'T THINK I HANDLE THINGS VERY WELL
AT ALL

34. In general, I feel that I am:
(Please circle one number)

*

- 1 A VERY GOOD PARENT
- 2 A BETTER THAN AVERAGE PARENT
- 3 AN AVERAGE PARENT
- 4 A PERSON WHO HAS SOME TROUBLE BEING
A PARENT
- 5 NOT VERY GOOD AT BEING A PARENT

35. How are you related to the child for whom you will read
the parenting booklets?
(Please circle one number)

- 1 MOTHER
- 2 FATHER
- 3 GRANDPARENT
- 4 OTHER CAREGIVER

36. What is this child's birthdate
(or expected due date)?

MONTH DAY YEAR

37. Is this your only child?
(Please circle one number)

- 1 NO
- 2 YES

if NO:

- a. How many children do you have
older than this child? _____
- b. How many children do you have
younger than this child? _____

38. Approximately how much did this child weigh at birth?
_____ POUNDS (0 if baby has not been born)

39. How would you describe this child's birth?
(Please circle one number)

0 BABY NOT BORN
1 VERY HARD
2 SOMEWHAT HARD
3 ABOUT AVERAGE
4 SOMEWHAT EASY
5 VERY EASY

40. What is your age? _____ YEARS

41. What is your current marital status?
(Please circle one number)

1 SINGLE (NEVER MARRIED)
2 DIVORCED/SEPARATED
3 MARRIED
4 WIDOWED

42. What is the highest level of education you have completed? (Please circle one number)

1 11TH GRADE OR LESS
2 GED OR HIGH SCHOOL GRADUATION
3 VOCATIONAL/TECHNICAL TRAINING AFTER
HIGH SCHOOL
4 SOME COLLEGE
5 4-YEAR COLLEGE DEGREE
6 POSTGRADUATE WORK OR DEGREE

43. Do you work for pay? (Please circle one number)

1 DO NOT WORK
2 WORK 1 TO 20 HOURS A WEEK
3 WORK 21 OR MORE HOURS A WEEK

44. If you are working or in school, who cares for this child during the day?
(Please circle one number)

0 NOT WORKING OR IN SCHOOL
1 FAMILY MEMBER OR FRIEND
2 FAMILY DAY CARE HOME
3 BABYSITTER IN MY HOME
4 DAY CARE CENTER
5 OTHER (please explain) _____

45. What is the present living arrangement for you and your child(ren)? (Please circle one number)

1 LIVE ALONE
2 LIVE WITH SPOUSE OR PARTNER
3 LIVE WITH FRIEND(S)
4 LIVE WITH OWN PARENT(S)
5 LIVE WITH OTHER RELATIVE
6 OTHER (please describe) _____

46. In all, how many people in your family live at your address?

47. About how much income does your family get each month before taxes?

\$ _____ A MONTH

48. Have you participated in any of the following programs during the past year?
(Please circle all numbers that apply.)

1 AFDC
2 FOOD STAMPS
3 MEDICAID/MEDICAL
4 WIC
5 SOCIAL SECURITY
6 HEAD START
7 OTHER (please explain) _____
8 NONE OF THESE

49. What is your ethnic/racial identity?
(Please circle one number)

1 BLACK
2 ASIAN
3 HISPANIC
4 WHITE (NON-HISPANIC)
5 NATIVE AMERICAN
6 OTHER (please explain) _____

50. Before registering for GROWING TOGETHER had you ever used the services of you county Extension office?
(Please circle one number)

1 NO
2 YES (please describe) _____

51. What other parent programs, if any, have you taken part in during the past year? (Please circle number and fill in information for all that apply)

- 1 NO OTHER PARENT PROGRAMS
- 2 ATTENDING PARENT EDUCATION GROUPS OR CLASSES FOR A TOTAL OF _____ TIMES
- 3 RECEIVING PARENTING INFORMATION IN MY HOME FROM SOMEONE LIKE A NURSE OR TEACHER FOR A TOTAL OF _____ TIMES THIS PAST YEAR
- 4 OTHER (Please explain) _____

52. If there were a discussion group for parents that met regularly close to your home, would you attend? (Please circle one number)

- 1 NO
- 2 YES
- 3 NOT SURE

53. Is there anything else you would like to tell us about yourself, your family, or your experiences with children? If so, please use this space for that purpose, or anything else you would like to tell us.

* indicates question used for attitude measurement

** indicates question used for knowledge measurement

Appendix B

Table 19

ANOVA table for Comparison by State of Residence

Source	df	Mean Squares	F Ratio	F Probability
State	4	5.1986	34.6082	.0000
Error	2,090	.1502		

Table 20

ANOVA Table for Comparison by Race of Parents

Source	df	Mean Squares	F Ratio	F Probability
Race	5	7.4215	52.6877	.0000
Error	2,047	.1409		

Table 21

ANOVA Table for Comparison by Educational Level of Parents

Source	df	Mean Squares	F Ratio	F Probability
Ed. level	5	6.4046	44.2252	.0000
Error	2,058	.1448		

Table 22

ANOVA Table for Comparison by Marital Status of Parents

Source	df	Mean Squares	F Ratio	F Probability
Mar. St.	2	24.5604	84.2168	.0000
Error	2,074	.1458		

Table 23

ANOVA Table for Comparison by Employment Status of Parents

Source	df	Mean Squares	F Ratio	F Probability
Em. St.	2	2.4500	15.5755	.0000
Error	2,076	.1573		
